



SLC Series Heavy duty slurry seals

Proven performance in mineral and
ore processing applications



Experience In Motion

SLC Series seals are heavy duty single cartridge seals built for the harshest slurry pump services found in mining, mineral and ore processing, and flue gas desulfurization. The SLC Series is designed with a unique non-clogging cone spring that increases seal reliability and enables flushless operation for low operating costs.



The premier seal for tough slurry applications

The SLC succeeds in these challenging slurry operations

Coal Processing/Washing

Thickener Underflow, Thickener Overflow

Uranium Processing

Pregnant Feed, Tailings, Cyclone Feed, Pyrolusite Distribution, Underflow Thickener Feed

Copper Refining

Concentrator Slimes Thickener Tailings

Nickel Refining

Slurry Transfer, Thickener Overflow, Thickener Underflow, Acid Slurry, Mill Hydrocyclone Feed, Tailings Transfer, Spray Dryer Transfer Pumps

Alumina Refining

Digester Feed, Caustic Cleaning Preparation, Bauxite Grinding Pumps, Desilicator Discharge Pump, Seed Filtrate Pump, Coarse Seed Filter Feed Pumps, Seed Charge

Hard Rock Mining

Ground Dewatering

Tar Sands Extraction

Froth, Pad Pumps, Tailings Transfer

Mineral Sands

Ore Mining

Slimes Pump, Concentrator Feed, Tailings/Tailings Booster pumps, Mineral sand slurry, Mineral sand concentrate

Synthetic Rutile Plant

Slurry Transfer Pumps, Acidic Slurry Transfer Pumps

Pigment Plant

Finished Slurry pump, Neutralisation feed pump, Chlorine Compressors (GARO)

Flue Gas Desulphurization (FGD)

Limestone Slurry, Calcium Sulfate Slurry, Gypsum Slurry, Filtrate Return

Gold Mining

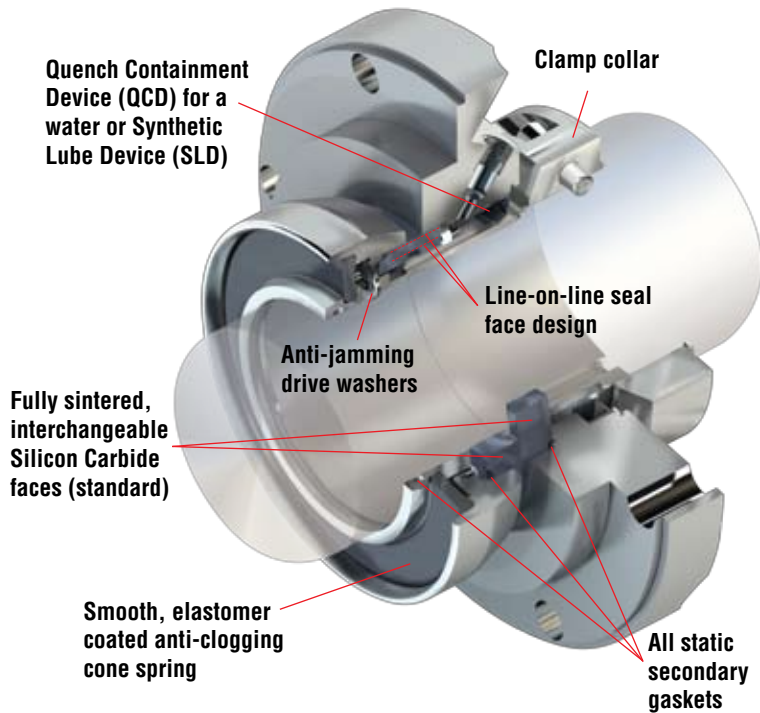
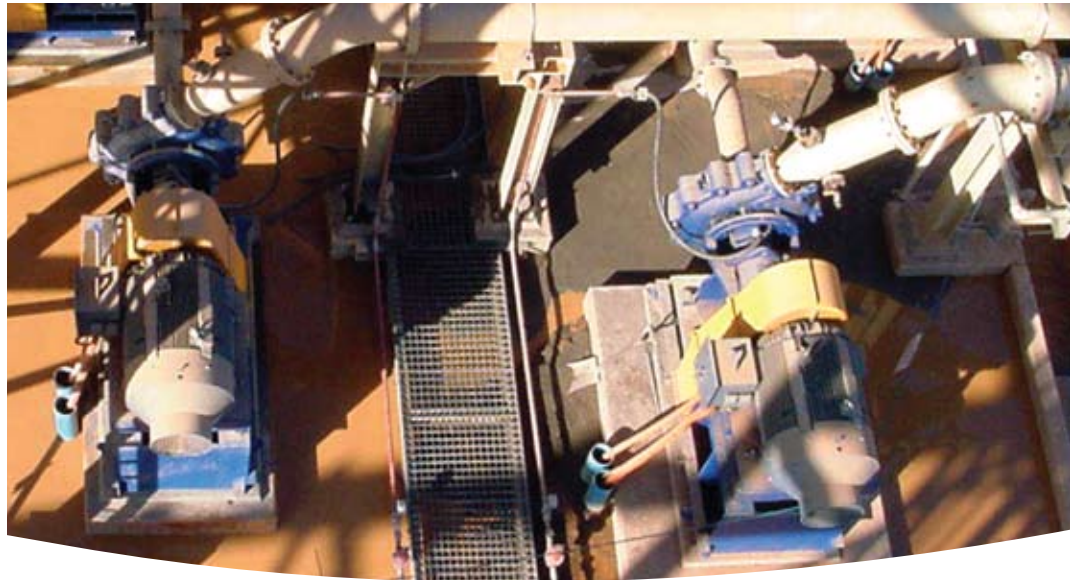
Carbon In Leach Tails, Decant Water, Saline Water, Concentrate Transfer, Cyanide Transfer, Conditioning Tank feed, Tails Thickener feed

Potash Plant

Circulation Pumps

The SLC advantage

- Abrasion-resistant and corrosion-resistant metal components and silicon carbide seal faces extend seal life beyond slurry pump components to maximize equipment uptime.
- Robust construction handles slurry particle hardness up to MOH 9 and slurry concentration up to 60% solids by weight for reliability in the toughest services.
- Clean, open design operates without flush water to help reduce product dilution and save significant water-related operational costs.
- Encapsulated cone spring increases reliability by providing consistent spring loading and hydraulic balancing to the seal faces without clogging or wearing.
- Consistent, correct installation is achieved by the cartridge design from the pump equipment's wet or dry end with no special tools or seal-related bearing housing adjustments.
- Six group sizes meet the requirements of most slurry pump equipment giving maximum flexibility with minimum inventory.
- Available outboard lip seal and Plan 62 grease or water quench provide lubrication to the seal faces during dry running pump cycles.

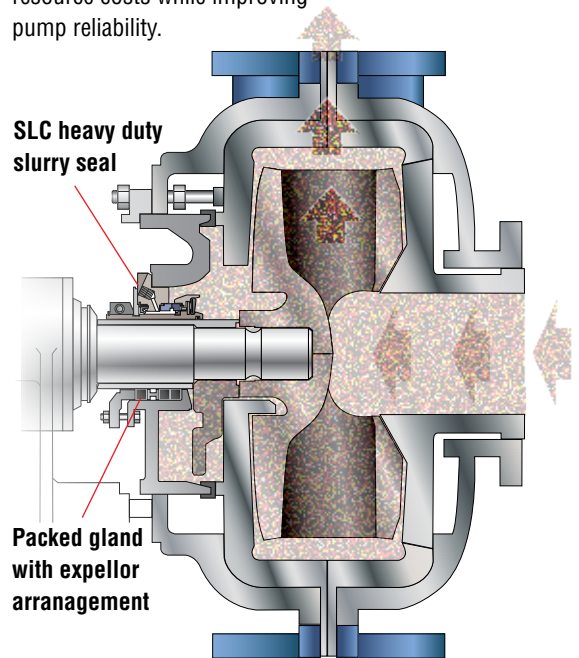


Operating Parameters

| | |
|-------------------------------------|--|
| Pressure | Up to 20.7 bar (300 psig) |
| Temperature | Up to 77°C (170°F) without quench Up to 110°C (230°F) with quench <small>For higher temperature applications contact your local Flowserve representative</small> |
| Maximum slurry concentration | 60% solids by weight |
| Maximum particle hardness | 9 MOH |
| Surface speed | Up to 15 m/s (3000 fpm) |
| Shaft sizes | 35 to 220 mm (1.375 to 8.661 inches) |

Out-performs packing in slurry pumps

The SLC reduces maintenance and resource costs while improving pump reliability.



Materials of Construction

| | |
|--------------------------------|--|
| Wetted metal components | Hardened, high chrome iron (standard) CD-4MCuN or other alloys (optional) |
| Seal faces | Silicon Carbide (standard) Tungsten Carbide (optional) |
| Elastomers | Aflas ¹ (standard) EPDM, Viton ² (optional) |

1 Registered trademark of Asahi Glass Co., Ltd.
 2 Registered trademark of E.I.DuPont

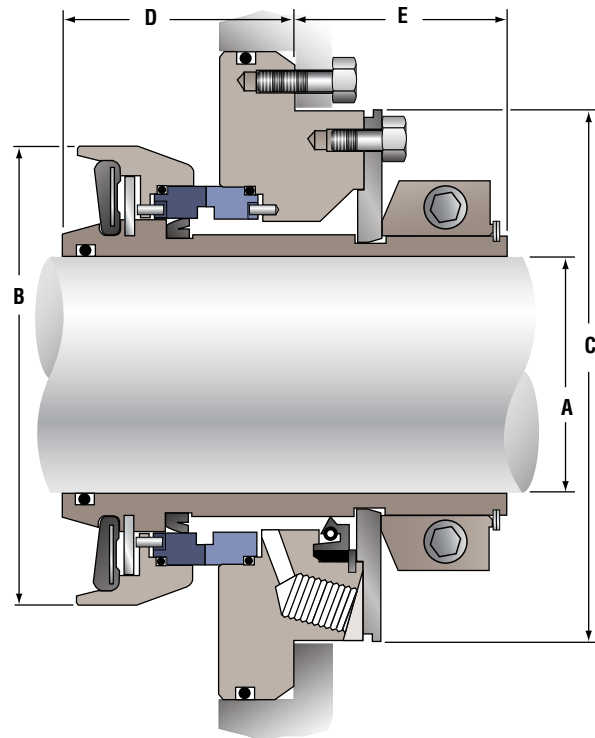


SLC Dimensional Data in millimeters

| Group | A | B | C | wet end | | dry end | |
|-------|-----------|-------|-------|---------|------|---------|------|
| | | | | D | E | D | E |
| 1 | 35 - 54 | 99.7 | 127.8 | 62.2 | 52.4 | 55.5 | 56.2 |
| 2 | 54 - 82 | 136.0 | 156.5 | 62.7 | 57.9 | 58.1 | 58.6 |
| 3 | 82 - 106 | 170.0 | 186.4 | 67.3 | 59.9 | 65.5 | 61.6 |
| 4 | 106 - 138 | 202.1 | 229.6 | 67.8 | 77.7 | 69.2 | 67.4 |
| 5 | 138 - 181 | 257.9 | 280.9 | 78.5 | 83.6 | 77.4 | 66.5 |
| 6 | 181 - 220 | 313.2 | 329.6 | 92.4 | 99.3 | 92.1 | 99.3 |

SLC Dimensional Data in inches

| Group | A | B | C | wet end | | dry end | |
|-------|---------------|-------|-------|---------|------|---------|------|
| | | | | D | E | D | E |
| 1 | 1.375 - 2.125 | 3.91 | 5.03 | 2.45 | 2.06 | 2.18 | 2.21 |
| 2 | 2.125 - 3.125 | 5.35 | 6.19 | 2.47 | 2.28 | 2.29 | 2.31 |
| 3 | 3.125 - 4.125 | 6.69 | 7.34 | 2.65 | 2.36 | 2.58 | 2.42 |
| 4 | 4.125 - 5.438 | 7.96 | 9.04 | 2.67 | 3.06 | 2.72 | 2.65 |
| 5 | 5.438 - 7.125 | 10.15 | 11.06 | 3.09 | 3.29 | 3.05 | 2.62 |
| 6 | 7.125 - 8.661 | 12.33 | 12.98 | 3.63 | 3.91 | 3.63 | 3.91 |



Bottom view shows lip seal feature

Note: For sizes and conditions not listed, contact your local Flowserve representative.

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and find out more about Flowserve Corporation,
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